LOADSTAR LETTER 64 #42

Novaterm News

1/12/97 - NOVATERM 9.6 PATCH "B" FOR CMD's TURBO232. Creative Micro Designs now offers a new serial cartridge as a replacement for the SwiftLink. Called the Turbo232, this cartridge is capable of speeds up to 230,400 bps. (You must use a SuperCPU to achieve the higher speeds reliably.) Novaterm 9.6 patch "B" has a driver for this new cartridge.

Patch "B" also uses SuperCPU optimization, which improves Novaterm's performance with a SuperCPU even more. These are the only two changes to Novaterm in this release. If you don't have a SuperCPU or don't plan to purchase a Turbo232 cartridge, don't bother upgrading right now.

As with the previous upgrade, send your original disk back to the author for the new copy. Please include a dollar to cover the cost of return postage. Thanks.

Nick Rossi
10002 Aurora Ave. N. #3353
Seattle, WA 98133 U.S.A.

Arkanix Labs Has Big 8-bit Hardware Plans

Arkanix Labs is a Seattle based software/hardware developer and distributor of products for C64, CMD SuperCPU, and PC. They recently took over the operations of the largest C64 software distributor in the US, Threshold Productions.

Said Petar Strinic, "Currently we are restructuring all of our C64 products to fit into a 3.5" format. This will involve taking all our current games along with 13 new titles and bundling them in 3-4 packages, on a 1581 format 3.5" disk. New titles include: Mean Car, World Conquest, King, Coldiarus, Arctic Hunt, Valdgri's Sword and more."

"Our long awaited C128 based MOD Player, MOD Play128 is set to release in the 1st quarter of 1997, with MOD Edit128 to follow shortly. We are also working on securing a steady supplier of parts necessary for production of our digi-hardware including the DualSID and DigiMax boards."

"Also the brand new and very much improved version of 64Net. 64Net/2 is in its final beta stages right now. This package will offer the user ability to interface his C64/65/128 to a PC/Amiga or a UNIX workstation, and use its resources in conjunction with the Commodore resulting in some never before seen possibilities."

We are also working with a major European distributor on making our product available on the vast European Commodore market.

Due to the current state of the Amiga market, and the terrible handling of the buyout by V1Scorp of Amiga Technologies, we at Arkanix Labs will put all Amiga development and distribution plans on the back burner. If, and when, a company steps forward and makes a decisive strike to make the future of the Amiga platform stable - we will return full force.

- Dual SID* (Commodore 64/128), dual SID chip expander, $35.00
- Digi MAX* (Commodore 64/128), 4 channel DAC board, $25.00
- 8-BSS* (Commodore 64/128), 8-bit stereo sampler board, $50.00
- 64Net (PC), PC-C64 network environment, TBA!

*SuperCPU compatible hardware

MOD Play 128 gives you the ability to play .MOD files on the Commodore 128 in 4/8-bit mono (single SID), or 4/8-bit stereo (dual SID) modes. 4 Export filters allow you to save the sound in formats from 4-bit mono RAW to 8-bit stereo WAVE file.

Includes full CMD hardware support.Supported File Formats: Noise Tracker, Sound Tracker,Star Trekker Fast Tracker, Pro Tracker (including 100 patterns) more... Platforms: Commodore 128. Estimated Completion:Any Time.

MOD Edit 128 is your very own MOD file tracker for the Commodore 128. Estimated Completion: 1st Quarter of 1997.

64Net/2 is a network platform allowing you to access resources on a host machine from your Commodore. Improvements: Direct Internet access (using file based sockets). Near 100% CMD HD-DOS command compatibility. ROM version. 'Stealth Wedge' which lives under the kernal. REAL disk image handling (1541, 1571, 1581, CMD HD images) (D64, D71, D81, DHD respectively) (read-write) LYNX, ZipCode handling (appear as subdirectories). Other formats to come!

New much faster cable UNIX, AMIGA and MS-DOS versions. Improved software compatibility with existing products. Host Platforms: Amiga, MS-DOS, UNIX. Clients Supported: Commodore 64, 65 & 128. Estimated Completion: End of 1996.

E8/16SC. Enhanced 8/16 Sound Card is designed for use with MOD Play 128, but can be used with other software, allowing for 16-bit stereo sound. Platforms: Commodore 64/128, SuperCPU. Estimated Completion: 1st Quarter of 1997.

PowerSID 4000 adds 8 SID chips to your 128 allowing for 27 voice polyphony. Platforms: Commodore 64/128, SuperCPU. Estimated Completion:2nd Quarter of 1997.

PowerSID 4000 combines the features of E8/16SC and PowerSID 2400, turning your Commodore into a 27 voice sampling workstation. Platforms: Commodore 64/128, SuperCPU. Estimated Completion: 2nd Quarter of 1997.

Sound Studio 128 v4 is a greatly improved update to Sound Studio v3.8 Platforms: Commodore 128. Estimated Completion:1st Quarter of 1997.

For product information, send e-mail to info@arkanixlabs.com. For a free catalog. Send e-mail to catalog@arkanixlabs.com For sales information, send e-mail to sales@arkanixlabs.com

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A Month of Pure AOL Hell! So Why Is This Man Smiling?

NEW YORK (LSL) Because he's one of a few attorney generals who've brought the online giant to their knees and made them at least pretend to clean up their act. He's threatened to sue the pants off of America Online if they don't get their act together. He's state attorney general, Dennis C. Vacco, of New York, and he isn't kidding. Vacco threatened to sue America Online in response to customer complaints of poor service and deceptive business practices. Say Vacco, he wants AOL "to stop allegedly deceptive business practices and to win refunds" for customers. "You don't sell 10,000 tickets to a theater that you have only 3,000 seats for. Consumers that want refunds should be able to get refunds."


Dennis C. Vacco

Representatives from Vacco's office and 19 other state attorneys general voiced their concerns with AOL officials in Chicago. Details from that meeting weren't disclosed.

Needless to say, AOL successfully promised whatever it took to stop any criminal court proceedings. In the meantime its customers did whatever it took to stay online — including *never* disconnecting. Since they were promised unlimited Internet access, they simply stayed on line permanently.

Should AOL Leader, Bob Pittman, be Prosecuted?

By Jeff Jones. Jim Bakker didn't go to jail for his tryst with Jessica Hahn, or for the crime of having his pooch live in a multi-thousand-dollar doghouse, complete with air conditioner. No, Jim was originally sentenced to 40 years in prison for selling *time* that he didn't have in his Christian resort. My pastor at the time spent $3000 for a lifetime membership, and told me that he never had a problem getting a room for a weekend. Nevertheless the resort was hopelessly overbooked, and thrived on cancellations. My health club does it, airlines do it, but no one does it like America Online, which can only accommodate about 200,000 customers for now, but promises unlimited time to about nine million people. For years AOL has been known for slow, sluggish service due to overcrowding. Sometimes E-mail was even lost because of this.

Steve Case, who dismissed thousands of old dejected Commodore customers, pleaded with millions of angry, litigious PC and MAC customers:

I know that you may have had great difficulty connecting to AOL in recent weeks, so I wanted to let you know what we're doing to address the problem.

But first, I want to emphasize that we take our responsibilities to members very seriously. We realize that you expect AOL to be easy to use -- including easy to connect to -- and we understand how it feels to encounter repeated busy signals. We all dial in from our homes at night, just like you do, so we see the problems firsthand. And many of us also dial access numbers in different cities during prime time, to personally see how the demand affects our members.

So we are well aware of the extent of the problems. And we're working day and night to fix them -- as quickly as possible. That's the #1 priority at AOL now. Bob Pittman, President and CEO of AOL Networks, and I are spending almost all of our time on this. How did this happen? Let me give you a little background on what happened, and then I'll focus on what you care most about, which is what we're doing about it.

<lines snipped>

Today, we announced a series of steps we are taking to deal head on with this problem.

First, and most important, we're increasing the size and the pace of our system capacity expansion.

We had previously planned to spend $250 million through June to expand our system capacity; we're now upping that to $350 million. It takes time to add additional system capacity, as we rely on hardware companies to build equipment and telephone companies to install circuits. But these companies recognize the critical nature of this problem, and are working closely with us to accelerate our deployment plans. We therefore expect to add 150,000 new AOLnet modems by June, an increase of 75%. What that means is by June we will be able to handle roughly 6 million more sessions each day. In addition, we will be breaking ground next month on a new 180,000 square foot data center. And we're increasing our promotion of the "Bring Your Own Access" option, which is a good solution for people who already have an Internet connection at work or school or from an Internet Service Provider.

Second, we are beefing up our customer support staff to serve you better. We've already increased that staff to close to 4,000 people, but we'll be adding 600 more by June to serve you better. Soon, we'll offer a dedicated toll-free line you can call to get updated access number information, so you can quickly learn about new access numbers as we add them. Third, we're significantly reducing our marketing efforts.

<lines snipped>

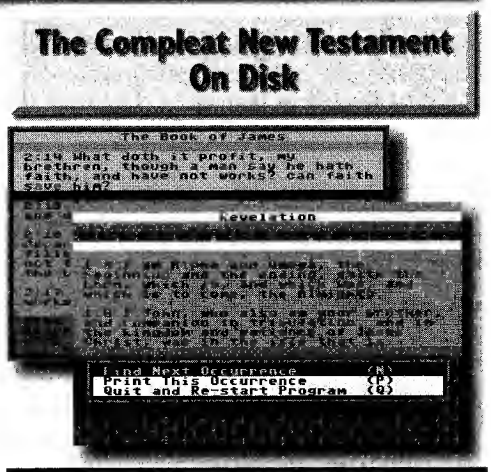
There's also something you can do to help, and that is to moderate your own use of AOL a bit, during our peak evening periods. Although we of course want you to enjoy all that AOL has to offer and benefit from unlimited use, during this transitional period it would be helpful if you were sensitive to the needs and frustrations of your fellow members.

Some people have told us that because it is difficult to get online, once they are online, they never want to sign off -- even when they aren't using it. While that's understandable at one level, it is obviously problematic at another. Just as you would be sensitive about using a public phone booth if others were waiting in line to use it (although you are entitled to use it as long as you want, most people are considerate of the people waiting to get a turn), it would be helpful if you could be considerate of the needs of other members of the AOL community.

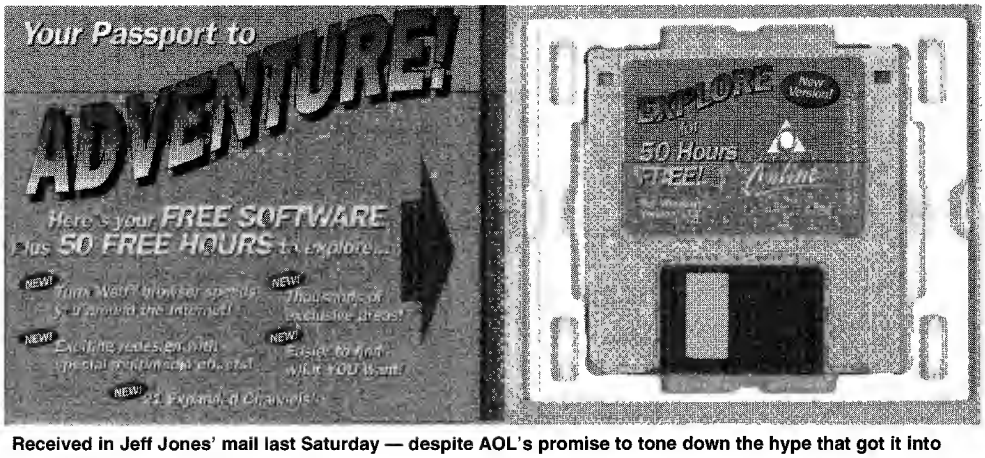
Use AOL as much as you want during the day, but try to show some restraint at night during the next few months when we're in this transitional mode.

<lines snipped>

Thank you for your patience and support.



The Compleat New Testament On Disk!: Search and print the King James Version of the New Testament on three 1541 disks or one 1581 disk. SuperCPU and RAMLink compatible for fast searches through multiple books. Export text to Edstar files (Edstar Included!). Include accurate excerpts from The Bible in your presentations and letters because this product is designed to export the scriptures you need. Each book of the New Testament is broken into highlights so that you can easily find key passages by name such as the Sermon On The Mount, Marriage, Divorce, and Spiritual Gifts and hundreds of other topics. Be on the lookout for The Compleat Old Testament and The Compleat Bible soon. **Three 5¼-inch disks, #0042D5 $20.00. One 3½-inch disk #0025D3 $20.00.**



Received in Jeff Jones' mail last Saturday — despite AOL's promise to tone down the hype that got it into legal trouble.

Legislators move to Limit Spamming. Civil Libertarians Up In Arms

By Jeff Jones. Spammers, people who send unwanted e-mail to many mailboxes at once or impertinent newscasts to many newsgroups at once, get your e-mail address from companies who use robots to extract your return address from any newsgroup which you post. Luckily for most CBMers that doesn't seem to include comp.sys.cbm, but if you have any more popular interest and dare speak, your e-mail address is fair game without some sort of legislation to stop it.

No one hates spams more than me. Lately I haven't been able to argue about Dennis Rodman in the Chicago Bulls newsgroup without my post generating at least two spams per post, all of them either of a sexual nature or pure, pure scam. What was interesting was that today a spammer sent me very friendly mail with no sales pitch that actually fooled me into thinking I knew the guy as a customer or colleague, but forgot his name. I thought that perhaps he had seen my website and wanted to show me his own. I should have been tipped off when he mentioned that his two daughters were "sexy", but when I went to his website, I got a bold message:

You and I have been the victim of a malicious e-mail attack.
Please ignore the contents of any e-mail that contains the line:
X-UIDL: 938475928659265892769582698579 28 or similar.

Apparently this scammer got my address from somewhere and was trying to sell me something on his website, but had been shut down by his ISP. Evidently enough legislators who also wander cyberspace are perturbed by this activity. Nevada and Maryland are both seeking to enact spam-stopping laws. Just in this last month, spammers leapt one notch lower on the evolutionary wrung by promising teen-age porn to people who responded to their wide-spread postings.

"Even hundreds of laws against spamming won't stop it," said Stanton McCandlish, webmaster of the Electronic Frontier Foundation. "It's a local ordinance in a global medium." McCandlish prefers software solutions, such as anti-spam filters, based on broadly accepted protocols, but admits that the timeline for such a solution to junk spams could be from six months to five years.

Others don't place much stock in the Internet's propensity to police itself. "There's kind of an infantile, head-in-the-sand, *we can solve the world's problems because we can write software* attitude, and ultimately its not tenable," said one activist.

AOL and Prodigy won the limited right to protect their members from e-mail promotions of a notoriously prolific spammer called Cyber Promotions. Although the court gave both services the right to prevent Cyber Promotions from spamming from within their domains, there's nothing to prevent the company from spamming from the outside. In January, Cyber Promotions resumed spamming AOL members.

But some hope that spamming will simply go away as companies become more Net-savvy. "Anyone who's been online for a long time knows that it's not an effective marketing process," McCandlish argues.

Snapshotting Programs For Use on Other Systems

By Jeff Jones. If you own a program that won't boot on your SuperCPU, HD or RAMLink because of copy protection, the best way to get the program into the 90s is to capture it. This is advice you might get from CMD if you have boot problems with programs like Paperclip or Abacus's BASIC Compiler. If you own a Super Snapshot, Action Replay, or Final Cartridge, and keep it regularly plugged in and enabled, it's no problem to use the programs you've captured. If you publish programs as we do at LOADSTAR, you have to worry about the snapshot working on all types of systems — with and without JiffyDOS, with and without cartridge fastloaders, SX-64s, computers with RAMLinks and Super CPUs. There's an art to this, but first you have to understand what you're doing when you snapshot.

The snapshot is an image of memory as captured by the cartridge. You have to remember that when a person runs your snapshot program, it will pick up right where it left off. This can lead to crashes even if you did everything right and the snapshot file is captured perfectly. You have to understand how to leave the computer in a condition where it won't crash after the snapshot file is run. *Everything* is captured. Location 186 is captured. This is the device number from which you booted. If the program goes out and gets more files (say a high scores file) after the point in which you captured, it, it might go looking for them on drive 9 if that's the drive you booted from. and if the person has no drive nine, they'll run your program and promptly get a ?device not present error.

More important, *vectors* tell your

computer where to jump for loading, saving, and commands. If you have a RAMLink enabled, your Snapshot program will have RAMLink and JiffyDOS vectors. The programs will work on a stock C-64, but disk access may cause crashes. This is why it's always important to boot your program on drive 8, the most common drive, and to have *everything* disabled, the Snapshot cartridge, RAMLink, wedges — anything special. Even JiffyDOS must be turned *off*. It has a wedge and FKeys enabled, and the resources won't be there if the person running your software doesn't have JiffyDOS yet presses F1 in the immediate mode. Sure it will take forever to boot the program — but that's only once. And don't worry about RAMLink's vectors. A person running RAMLink will still be able to access RAMLink partitions when the program executes since its vectors are always overlaid over the C-64 when it's enabled.

Capturing the program in this pristine state, has a cost: running it disables all cartridge based fast loaders. This is okay since the program is initially fast loaded, but only disables the fast load *afterwards*. Again, a Snapshot program *can't* disable RAMLink or JiffyDOS. You'll still have access to your partitions and full speed.

I have to make demos work with CMD's SuperCPU all the time now, and the process is quite simple. Usually the demo would work fine with the SuperCPU, but was packed with a program which is incompatible with the SuperCPU for whatever reason.

In summary, you must completely disable everything you've added to your C-64 before capturing the program.

20 Questions With Nick Rossi

Jeff: How did your Commodore experience begin?

Nick: October 1984. Mom and Dad bought a 64 for me to replace the old TI99/4A. I think I convinced them by rattling off a bunch of neat stuff the 64 could do that the TI couldn't, and they bought it even though they didn't know what I was talking about.

Jeff: Why are you still with Commodore when everyone has told you you should move on?

Nick: The shareware money that I received for Novaterm during college was enough to eke out a meager existence, so I kept plugging away at it.

After I finished college, I spent about a year as an independent consultant, so it made sense to continue it as just another project.

When Novaterm 9.5 and more recently 9.6 did well, I was further motivated. I've just never been able to put it down.

In retrospect, I think the Commodore has stayed alive for two reasons - one, because there really isn't a serious contender to satisfy the under-$2000 home computer market, and two, because of the Internet. The Internet has brought Commodore users together who would otherwise be scattered in lonely corners of the world. Plus, the Commodore is a cheap way to get on the Internet and do everything else.

Jeff: Why the name, Novaterm? Any story behind that? Couldn't be homage to Rich Ryder, the man called Nova, of Marvel Comics, could it? He was my favorite hero of the 70s.

Nick: Nothing so esoteric... at the same time I started Novaterm (at around age 13), I also started writing some BBS software. The BBS was called "Supernova". (I was all ready to become an astronaut at the time, so I think I picked that name for its astronomical sound.) I figured the terminal program to go along with Supernova BBS would naturally be called Novaterm.

Jeff: For those who don't know, could you describe Novaterm?

Nick: It's a telecommunications package. It gets you on-line with your modem.

Jeff: What other software are you known for?

Nick: Nothing else, really...

Jeff: How has Novaterm 9.6 been received?

Nick: Very well, much better than I ever expected. I think it's because of the Internet.

Jeff: How has CMD's SuperCPU affected your plans for future projects?

Nick: Since it's becoming so popular, it'll make sense to start using its native (65816) mode to accelerate performance wherever possible. Your computer can never be too fast for going on-line... I think Commodore users will eventually be amazed at the possibilities it will open up.

Jeff: You must get a consistent return-and-demand-for-refund from people who order Novaterm without understanding what it is. Is there some broad misconception about Novaterm?

Nick: Actually, Commodore users know what they're buying. It's not like a product on the grocery store shelf in a box with the name "Novaterm" on it -- then people would be confused. When you hear about it, it's usually in context, and when you order it, it's because you know what you're getting. I suppose I'm fortunate in that respect, offering a product that doesn't need so much name-building.

Jeff: Does Novaterm support null modem hookups, and why would null modem be desirable over direct disk transfers between PCs and C-64s?

Nick: Novaterm supports anything that plugs in as an RS232 connection, which includes null modem cables. In fact, I use a null modem cable to transfer files between the PC and 64 all the time, because I do all the development (code writing and assembly) on the PC, and transfer the binaries to the 64.

Jeff: Do you program on an emulator or a cross assembler and why?

Nick: I use a cross-assembler, then transfer everything to the Commodore for testing. I have some background in Linux (free PC-based Unix) and C programming, so I wrote an assembler that had exactly the features I wanted. At the time I moved all the Novaterm stuff to a PC (about eight years ago), using an editor and assembler on the PC was much faster, without high-speed Commodore products like the RAMLink available.

Jeff: Do you find that your customers surf the net more or BBSs?

Nick: It's hard to say, but I think it must be split even, maybe moving toward netsurfing more. There's so much good Commodore information on the net, and ever fewer Commodore BBSs, that I think the trend will continue.

Jeff: Yes. I read that the BBS is vanishing to natural selection -- but that was many years ago. The LOADSTAR BBS is now part of a thriving network of Commodore BBSs, called Commnet. Since BBSs are friendlier to Commodores than the Internet, do you think that the Commie BBS will be the last to go?

Nick: I think bulletin boards in general still support small groups of local people. If Commodore BBSs can keep themselves networked together, they'll be around longer. I think the connectivity is the key, since Commodore users are spread thin today, in many communities there aren't enough of them to support even one Commodore BBS. Getting Commodore people from all over in contact with each other will keep it alive. The Internet has done that quite well, but there's definitely a huge tradition in Commodore BBSs that won't die so easily.

Jeff: What do you use Novaterm for?

Nick: I use it as a terminal to my PC (where I run Unix) and as a dial-up device to my Internet provider.

Jeff: How do you make a living?

Nick: Right now I write software for a small startup company in the information retrieval field. It's C/C++-based client/server stuff that is meant to run on the Internet or in intranets. At some point I will be a full-time filmmaker, so I am constantly working toward being able to spend more of my time on that.

Jeff: Interesting. Do you already have motion pictures or scripts under your belt?

Nick: Right now I have a weekly public access TV show up here in Seattle. It's a half-hour sketch comedy program, all on-location stuff. We put out about one new show a month (and run reruns the other three weeks). But it's all baby steps on to making movies later.

Jeff: What's your age and are you married, with tax deductions?

Nick: I am 24 and not married. I will, however, be an uncle in a few months, so I'll get all the benefits without all the headaches.

Jeff: Novaterm must have been a big project. What made you decide that it needed to be written — and why you?

Nick: It was more of a snowball than anything. Way back when I was given my first modem (1985) I used "Common Sense" and "Multi-term", and was not thrilled with

(Continued on page 5)

either one. Being ambitious as always, I decided to write something of my own. It became one of those projects to see how far I could push it. Eventually, I realized I had a full-fledged program. Big things don't get built overnight - they usually grow and evolve from something small and innocuous.

Jeff: Hah! I used an incarnation of Common Sense, found on the back of the Qlink boot disk. I remember being unable to send Rick Nash a file because it was too long (only about 80 blocks). Common Sense used the screen as a memory buffer. It also used the screen to print a dot for every packet sent. when the dots caused the screen to scroll, the buffer above would be corrupted, causing a CRC error. Could this be part of your inspiration.

Nick: You got further with Common Sense than I did. It didn't work at all with my first modem, which was a 1660. I wrote a terminal in basic just to get on-line. That's really what started Novaterm in the first place.

Jeff: How did you develop your programming acumen?

Nick: Novaterm is largely responsible for developing my skills. Much of what I know now came from this experience.

"Mapping the 64" was (and still is) my bible for keeping track of the 64's internals. I got my start in machine language from Jim Butterfield's book, way back when. Other programmers have always been a great help - too many to name — but they all know that it pays to answer questions because pretty soon you'll have one of your own.

Jeff: For a long time there was no Zmodem for the Commodore. I saw this and thought I should take some C source and translate it into 6510 assembler, but I stopped when I realized all I'd have was a subroutine, not a terminal program. What hurdles did you encounter while developing the Commodore 8-bit's first ever Z-modem technology?

Nick: Well, I started from some Zmodem source code I found on a site somewhere. It was written for downloading only, and it only stored the data it received on the screen. Looking through the code, I realized I could adapt it for Novaterm fairly easily. It needed to be optimized for the SwiftLink's high speeds, and it needed to be integrated with Novaterm's display and disk/buffer access. For version 9.6, I decided to go the distance and add uploading and crash recovery. It wasn't too difficult using what I already had as a starting point.

I've never been the kind of person who could start a project that couldn't be carried far. I'm an application man. I like to take different ideas and theories floating around and try to turn them into something of direct human value. In college I remember encountering theorists who actually had disdain for anyone who suggested applying their theories to practical applications, who thought that "applied science" was beneath them. I never understood that attitude.

About Novaterm:

Speedy serial ports...

- Supports the SwiftLink cartridge up to 38,400 bps
- Supports the CommPort cartridge up to 38,400 bps
- Supports the HART cartridge up to 57,600 bps
- Supports the user port at 9600 bps with RS232 interface modification
- Supports 2400 bps through the unaided user port

Emulating terminals...

- ANSI color/graphics in 80 columns
- VT102 in 80 columns
- VT52 in 80 columns
- Commodore color/graphics in 40 columns
- ANSI color in 40 columns
- Load all emulation modules from one menu now!

80-column display modes...

- Soft-80 emulation on C64 (speed has been improved!)
- Enhanced soft-80 scrolling available with a REU
- 25- or 28-line C128 VDC 80-column mode (in "fast" mode)

Grabbing files...

- Zmodem upload and download
- Zmodem resume (crash recovery)
- Zmodem streaming (to buffer)
- Ymodem-g and Xmodem-1k-g (to buffer)
- Ymodem batch, Xmodem-1k, and Xmodem-CRC
- Punter and Punter Multi-transfer
- Kermit
- WXmodem download

Capturing text on-line...

- Use any memory device for the buffer:
- REU
- BBGRAM
- GEORAM
- RAMLink partition
- RAMDrive partition
- C128 VDC memory
- internal C64 memory
- Capture text while on-line directly into any device
- High-speed file transfers directly into memory
- Buffer retains contents in powered or battery-backed devices (even with computer shut off)

Converting files...

- Convert ASCII text file to PETSCII
- Convert PETSCII text file to ASCII
- Convert PETSCII text file to Unix text file
- UUencode files
- UUdecode files
- Convert files either on disk or in the buffer

And other great features...

- First-time configuration program for novice users
- Script language for automatic operations
- Full-featured Text editor with integrated script compiler
- Text editor can load/save files from the buffer
- Simple BBS mode - dial-in downloading
- Reads and displays time from real-time clock devices: BBRTC, CMD devices with RTC option

Novaterm is available on 1541 and 1581 disk formats, and comes with a clear, concise user's guide. It is being sold by the following distributors:

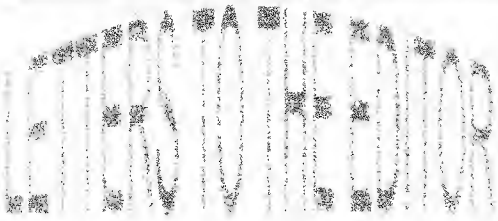
LOADSTAR, P.O. Box 30008, Shreveport, LA 71130, (800) 594-3370

Creative Micro Designs, P.O. Box 646,East Longmeadow, MA 01028, (800)638-3263

64'er Magazine, Neumuehlen 51, D-22763 Hamburg Germany

Sandinge's Import & Data, Wallbergsgatan 12, S-302 31 Halmstad, Sweden

Novaterm may also be purchased directly from the author. It retails for $29.95 + $1.50 shipping. To receive the Novaterm 9.6 disk and user's guide, send a check or money order for $31.45 in U.S. funds.



Invisible GEOS Box

Dear Scott,

Enjoyed your GEOS series in LOADSTAR LETTER. I don't think it was superficial; this is just the kind of help a lot of users who have problems slogging through the manual need. The problem is, many of them won't let go of the bucks to subscribe to helpful publications like yours.

I thought this was the best LOADSTAR Letter so far. This is the kind of quantity and quality needed to justify it as a replacement for The Underground and to make it worth the price.

My favorite geoPublish trick is the use of the "invisible box. It's not something that's needed a lot, but when it is, it's really handy. An invisible box can be used to cover up any unwanted information in a bitmap in Page Graphics mode. For example, say you have created a bitmap with special text that includes the date November 1996. Now you realize it is December 1996, but you don't want to take time to redo the bitmap. Click on the box tool, and draw a box over November 1996. Click on the width attribute then reduce the width to -0-, and select the non-transparent mode, and the box will cover the unwanted material, but be invisible. You can then enter the desired text on top of everything.

One caveat: A postscript printer will not recognize the invisible box and will print whatever is under it. I'm not sure what the results would be with a non-postscript laser printer or inkjet, but it is infallible with a dot matrix printer.

I also use the technique sometimes when I an joining two halves of a wide scanned picture, to cover up the overlap. You have to use the front to back tool to get everything layered properly, but when done with care, it does a great job.

Regards, Dick Estel in Rainy Fresno

Scott: Thanks Dick, that is a good tip! I have used that trick a few times, but forgot about it when writing the series. Feel free to let us know about any other GEOS goodies you have up your sleeve, as I know you use it quite a bit.

How Free Is Too Free?

Dear Jeff:

Here's something for your soapbox. I was up at www.dc.ee/files/ and was downloading some documentation. Took a look at the virus section, looking for a newer upgrade for the checker that I use. Right in that section, there are at least four virus construction kits!

Jack Vander White, Andy Friedmann and I were discussing that about two years ago, as we were offered, from a German outfit, the first "commercial" virus construction kit. We were horrified!!

With all the crap policing, of the Internet, for nasty pix and alleged electronic stalking... you'd think that the feds would pay a little more attention to the bigger threats!

Agreed, a decent virus checker (especially the ones that we tax payers provide the feds) will catch anything that the kiddies can create with those type construction kits. Unfortunately, that is harassment of the dirtiest kind! The average Joe, probably doesn't use his Virus checker enough. Enormous numbers of new Internet users, don't even know how! So those medium level viruses can/will cause huge problems in the future, by folks who are simply too bored to get a real life... and instead vent their boredom and frustrations, by diddling with those kits.

Why are the sysops allowing those kind of programs to be placed on the public domain? Give a kid a gun and some free bullets....

Enough soapboxing from me...

Jim Hehl

Jeff: Actually I've always been against blaming the sysops and ISPs for the digital gunk that users upload. LOADSTAR's BBS has an upload feature that I wish I could disable. We simply don't want your files. People still upload stuff and I promptly erase it. I do this because I don't want a copyrighted file or something perhaps more sinister to slip past me. I don't want the FBI confiscating all LOADSTAR computers, and perhaps some of Softdisk's, too, because one or more kiddy porn files slipped past me.

As for allowing such files, I used to wonder why obvious kiddy porn outlets were allowed on the Internet. I felt that the Internet couldn't be such a wilderness that such outlets were not deletable. Since my initial disgust I've heard from a reliable source that Internet newsgroups such as alt.binaries.erotica.children actually help the FBI track down child molesters. This is because the less savvy surfers leave digital bread crumbs right to their door. I say fine to that.

I've seen the file, *terrorist text.* It was on a disk included with a system from a co-worker. It contained articles that told how to steal a car for later use in a crime, how to blow up the cars of your enemies, using household chemicals. Freedom brings about the freedom to be silly and stupid. The Internet and BBSs are to an extent even more free than the real world. For instance, in the real world, pornography is a private thing. On the Internet, people spend hours upon hours and actually *pay* to share it.

People also share their stupidity. Most of us heard about the boy who built the pipe bomb from instructions he found on the Internet. That boy is no longer whole, but wholly stupid.

As a believer in freedom and the first amendment, I have to blame the boy for creating the pipe bomb more than the author for writing the text. Very little good can come from pipe bomb instructions or a virus construction kit. However evil we may think they are, they are not "forces of evil" until they are used, unlike kiddy porn on the net, which is a by-product or proof of previous child abuse, possibly abduction and murder.

Dear Jeff:

I just received The Compleat Programmer and I am experiencing difficulties. I ordered and received it on two 1581 disks which is fine. The problem is when I load disk 2 the menu for disk 1 appears on the screen and it says I am on Disk 1. When I try to select one of the items it informs me that it cannot find Disk 1 which is right because I have Disk two in the drive and have been trying to Boot it.

I have run the Directories and they are both different listing the programs that are listed on the label. Must be something wrong with the information that the presenter is loading on Disk 2. Disk 1 runs perfectly and the information looks good. Can you help??????

Russell L. Redman

Victoria, B.C.

Jeff: The solution is simple. when you have disk two in the drive, don't try to boot any

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of the programs on disk one. as you cycle through the menus, you see which ones are on which disks. It's just like a regular issue of LOADSTAR. If you boot on side three, you'll get a menu that starts off on side one. Just move down to the side three stuff.

Russell: My, how quickly one forgets. I used the 5-1/4 in LOADSTAR for several years before I got my FD-2000. Never occurred to me that it would be the same multiple disk format even when I saw the same reminder to change disks. Oh well, I guess it goes with the territory of growing older. Anyhow many thanks for your prompt attention to my problem .

Russell L. Redman

Victoria, B.C.

Dear Jeff:

As a long time "Toolbox" fan, I was wondering if you ever intend on working on a 128 version (or even a 64/128 version) of the series?

I like the current version, but think that a 128 compatible version (not quite like "control 80") would increase the number of programmers submitting good programs to LOADSTAR.

I've been writing my own code to try to duplicate some of the routines that you use in "Toolbox" but obviously, without commented source code, I can't come close. Of course, I've disassembled most of 64 version to see how you made it tick, but because of my lack of knowledge (and lack of suitable reference material) I can't seem to get the 128 side to cooperate.

On a side note, "Star Loader" is an excellent piece of work. As you noted yourself, however, it still needs to include subdirectory routines. If I may ask, do you intend to create a 128 compatible version?

That's all. Keep up the good work.

wanderer_rtc@pipeline.com

Jeff: I'm not much of a 128 programmer, probably because I'm a C-64 lover and a 128 hater. For a while back in the late 80s, I was beginning to like the 128 when my appreciation for the C-64 took over.

Hopefully when the Star Extra source disk is released, someone will take my source code and transform it into proper 128 code. I'm afraid that if I did it, I'd overlook obvious things that a C-128 lover would implement.

Dear Jeff:

I downloaded the Wraptor program, but it seems set to only dissolve a specific issue of LOADSTAR????

Does it have a problem with the SuperCPU or was my first assumption correct?

Yes, it changed versions, but what's the deal with the one on the WWW site that looks as though it's for general use, but when run sits there with "Exploding #037" on the screen?

Is there anyway to get it to work for other .wra files (like those on issue #148?)

Thanks,

Gaelyne

Jeff: You have a SuperCPU, eh? Not compatible with the Bit Imploder which crunched the program on the WWW site. We've since stopped using it. By the time this is published, the new version of Wraptor will be uploaded.

Gaelyne: Aha! With this info, I was able to get that version to work by disabling the SuperCPU completely. It was slow (after being used to 20mhz), but worked. Phew... thought I was losing it for awhile there.

This was the first general program I've found that required disabling the entire SuperCPU... usually turning off the Turbo mode has been enough.

Jeff: By the way, Wraptor (crunched properly) works with the SuperCPU, but its fast mode (useless with the SuperCPU) places garbage on the screen. Fender says he has no garbage problem with his SuperCPU. I have to admit that my system is quite strange. Could be my Jurassic RAMLink or my computer.

geoPublish: An Alternative Paint Program?

by Scott Eggleston. I realize I ended my series on geoPublish in issue #41, but since have recalled another good use for it. You may have noticed that in several articles I have written about geoPub, I have included screen dumps detailing some of the features of this fine program. These were screens that were "printed" to a postscript file (using a patched geoPubLaser), which Jeff could then place wherever he wanted. Printing these files in this manner gives them the highest possible clarity when outputting to a laser printer. I also used geoPublish for the reset switch diagram found in issue #40, which made me start thinking of geoPublish as a paint program as well as a desktop publisher. If you use a laser printer with GEOS (or even if you don't), you might want to take a look at what geoPublish can offer you that geoPaint can't. One shortcoming of geoPaint is the lack of a laser output. The only way to get something made in geoPaint to output to a laser is to import it to geoPublish. If you do choose this route (which may be unavoidable), the bitmaps will look like dot-matrix quality, i.e. with lots of "jaggies". One nice option in geoPublish is scaling, which will allow you to shrink your bitmap, giving it a sharper, cleaner look. Rescaled bitmaps printed from a laser look great, but results may vary on a dot-matrix. In fact, anything you create in geoPublish will come out laser smooth on a Postscript laser printer. This includes PS fonts, circles, arcs, lines, or whatever you can draw with geoPub tools. The tricky part is that geoPub was not really designed as an art program, making this process a bit awkward. While there are some similarities between Paint and Pub (creation of circles, boxes, lines, fonts), the way the latter handles these seems to work a bit better. For instance, both programs allow you to draw circles, but goPub allows more accurate sizing, with less guesswork. You can also resize or move the circle as many times as you want. This is true even if it overlaps another object. While you can move a placed shape in geoPaint (using cut and paste), you cannot resize it. You are also in trouble if ites overlap, as you cannot separate them. If you want to "cut up" a geoPub document to place scraps in a Photo Album, you must move your file to geoPaint. This is easily done by changing your printer driver to Paint Pages, and printing from geoPublish. Now your file is in geoPaint format and can be manipulated from that program. "Cutting" (with the scissor tool) is quite different in geoPublish. Once you remove an element from a geoPub document, it's gone forever. It is nice, however, to be able to move any or all elements within geoPub, as each one (or everything at once) can be "grabbed", moved and manipulated. Once you place something in geoPaint, it's permanent, unless you click on "undo" (which is only good for the lat element you were working with). It is important to note that once moved to geoPaint, your document is considered a bitmap and will lose sharpness if imported back to geoPub (see below) and printed with a laser. This also holds true for fonts--even the PS versions. In comparing both programs, geoPaint does have important options that geoPub lacks. You will not find a "fill" command in geoPub, beyond the ability to create a shape as a solid with a preselected pattern. There is also no "pixel edit" function which allows fine tuning of your creation, or even a basic "draw" option. I suppose this is evidence of why one program is labeled "paint" and the other "publish". A great way to use the two programs together is to create the more complex elements in geoPaint and import them into geoPublish. An example is converting .GIF files with geoGIF. Let's say you've converted five pictures of birds, which gives you five geoPaint files. Want them all on one page? Cut them out (use something akin to PaintScrap or ScrpCan) and import them into a geoPub file, one at a time. Now you can resize and move them all around, as well as add nifty titles. This is just one way geoPaint and Pub work well as a unit. The bottom line, really, is that by using both programs together, you can achieve more than by using them separately. While both programs are a bit incomplete on their own, a happy marriage of functions and tools can be formed when used in tandem. This may take a bit more effort, but you may find yourself pleasantly surprised with that poster, flyer, or whatever that emerged from two great applications instead of one.

RAMLink: Not Cable Ready

by Scott Eggleston. As a writer, I believe you cannot sit still and continue to crank out fresh material. Unless you want to rehash much which has gone before, you need to try new things. This evolutionary process is something I was committed to when producing the Underground, and try to do for the LOADSTAR Letter as well. Recently, I have been engaged in a project that has intrigued me, frustrated me, compelled me, and angered me. It's a project that some would consider a challenge, while others wouldn't want to touch it with a ten-foot soldering iron. I'm talking about slapping much of my Commodore 128 gear into a mid-tower enclosure. One important aspect of this mammoth task was the incorporation of a CMD RAMLink. After much inspection of the tower innards, I deduced that the only way I'd get this to work was to run an extension cable from the cartridge port to the RAMLink itself. Before I even bought the tower, I wanted to make sure this idea would be feasible. I built a simple prototype using some ribbo cable, a 44 contact card edge connector taken from a dead 64, and a card edge board extracted from, an IBM PCjr (remember those?) I got at a thrift store for one dollar. I had read many times on comp.sys.cbm that extension cables of this nature did not work well with RAMLinks. Something to do with timing. I really wanted my setup to work, however, so I ignored these posts, and built my prototype undaunted. I kept the ribbon cable short, just to prove it could be done, figuring I could lengthen the cable in the future. I took two equal lengths of cable, with 22 wires contained in each. I soldered one length to the top of the card edge connector and the edge board, attaching the other length to the bottom side of both connectors. Crudely completed, I was eager to plug it in and test my new ceation. Unlike the posts had seemed to indicate, the cable worked about 75%of the time, with the other 25% causing a lockup. Not bad results, but not great either. I wanted my RAMLink to perform at 90-100%, so I wouldn't ave to worry about losing anything valuable such as an article or program I might be working on. I deduced that with better quality parts, the cable would function much better, and allow me a greater cable length. This way, I could place the RAMLink wherever I pleased within the tower. After I had obtained a mid-tower case, and had altered the motherboard so it would fit inside, I built a better extension cable for my RAMLink. This time it was longer, and I used one solid length of ribbon cable, containing 44 wires. This required a bit more precision, as you must solder every other wire to the top and bottom of both connectors. After fitting the RAMLink within the tower, I tested the connection. The results were

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horrible. Sometimes I'd get the 128 opening screen, sometimes nothing. Sometimes, the screen would come up, and immediately dump out to the ML monitor, or various characters would litter the screen. When I could get everything to come up properly, programs would not run as they should. I tried again ith a different cable, going back to the original dual-cable design. Same bad results. I shortened the cable. Same mess. Considering the time it took to make each of these cables, I was getting a bit perturbed with my lack of progress. Fearing that my connection on the card edge board was not that great (all the resoldering was creating quite a buildup), I removed the cartridge port connector from the I28. I removed the edge board from the cable, connecting it directly to the computer. The results were better, but I still had a problem with programs crashing. In desperation, I called CMD's Doug Cotton to ask for his advice. His first response was a cackling "don't do it," which was not exactly what I wanted to hear. I persisted, and he did give me a few suggestions. He said I could try several things. First, he suggested doubling up the 5v and ground lines, so I had two wires from connector to connector. Next, he said to try a different motherboard, as I28s have a weaker signal strength, and were not made to work for what I was trying to do. Some boards, he said, were stronger than others, and may work where others would fail. He also told me that 64s were stronger in this manner than their cousins. I thanked Doug, and began testing out some of his ideas. I tried the "doubling up" of the connections mentioned above, with no luck. I did not have another motherboard to test, so that didn't help me either. I did, however test 64 mode for the first time, finding I had little to no problems with the extension cable. I still wanted it to work with my I28, however. Having a final brainstorm, I knew it was do or die for theI28/RL/cable marriage. I moved the RAMLink as close to the motherboard as I could. I then shortened the cable and stripped the soldered-on card edge connector. Next, I attached an IDE 50 connection connector (you just ignore the extra 6 pins), which presses right into the cable, making the best connection I would ever get. I really felt this last-ditch effort would pay off--but it didn't. While the power-up problems were completely gone, some programs would still not run when I had the RAMLink enabled. Disabling it fixed the entire problem, but what would be the point then? It was clear to me then, the RAMLink would not be residing in my new tower case. I know his may seem like a sad ending (and possibly a pointless article) to my story, but I did learn some valuable things about my computer, which can be looked upon as positive. The more we learn about our machines, the better prepared we are for the next endeavor. If any of you have been working on a similar project, I'd like to hear from you. I would imagine someone out there has been able to get one of these cables to work properly. It'd be great to hear how you did it. For those struggling with a similar idea, I hope that maybe some of the things I tried, or that Doug mentioned, will help you out. Another important point Doug made was that using these cables was a crap shoot, that every user could get a different result. This doesn't mean it won't work for you, just that it may be a little more complex. I recommend being stubborn, and trying anyway. You may fail, but you may succeed. Great things have happened when people were told, "that's not possible" (just ask CMD). For those of us who want our systems toevolve, we just can't listen to that kind of drivel.

Scott's Top Five Stress Busters

by Scott Eggleston. Sometimes, the best way to relax from a hard day at the TV station (my job), is to boot up a copy of a favorite action game on my trusty 64. Nothing quite soothes the senses as a romp through the universe with your blasters set on "char-broil". No prime directive to muck up your flight. No friendly aliens to give you a warm, fuzzy feeling. Just mass carnage dealt from the front of your spacecraft. Of course, I'm referring to some of the wonderful video games we have on our Commodores. These games are just as much fun to play as any with I6 million colors, digitized video, and 32-bit stereo sound. Why? Because playability is the name of any game worth anything. If it ain't fun to play, no one will, no matter what technology is poured into it. There are still Atari 2600 games which are better than some CD-ROM based contests, and the same applies to the 64. At any rate, I'd like to share a few of my favorites. Like favorite movies, favorite games are those you never tire of, ones which you cn return to again and again. So, without further ado, the following is a list (in no particular order) of my top five favs.

I. Stargate. Based on the arcade sequel to Defender, this home version actually plays more like a correct version of Defender than the "official" version of Defender, which I found quite lame. As a comparison to the arcade game, Defender, it's almost identical. The graphics are a mirror image, as is the sound, radar display, etc. The most amazing thing about this game is the control interface. There is no joystick driver available, which confused me at first, but makes perfect sense to anyone who remembers the coin-op version. You control your ship via the keyboard, using keys for up, down, thrust, reverse, fire, smart bomb, and hyperspace. The keys are laid out just like the buttons were on the real game (and there were a lot of them), the only difference being the joystick which controlled up-down movement. The absence of joystick control in Stargate makes this a game for wimps to avoid. It takes a lot of nimble finger dexterity to get anywhere in this game. It's a blast to play,however, filled with fast action, and a steep challenge. If there is anything I don't like about Stargate, it's the title screen, which is so simplistic. It hardly fits with the technical excellence represented in the rest of the game. Good thing I don't wait long to begin playing. Tip: If you're being pursued by a mutant (they love to drop down on top of you), thrust ahead of him, then turn around. While in pursuit, he'll move to your level where you can easily blast him.

2. Gyruss. A more recent acquisition, I finally got a copy of this game, which I had been wanting for awhile. Another arcade translation, Gyruss is basically a 3-D version of Galaga, which is an enhanced version of Galaxian, which was begat from Space Invaders...Again, this is an excellent conversion, matching the graphics and sound of the original very well. You basically fight your way through various "warps" (levels) in which you start from the rear of our solar system, in an effort to get to earth. After each planet is encountered beginning with Neptune (no mention of Pluto is made) you go through a "chance stage" (like Galaga's "challenge stage"), in which you shoot at swirling ships in an effort to hit them all and get a I0,000 point bonus. Miss one, and the best you get is 3,900 points. Instead of moving back and forth at the bottom of the screen, you can traverse all edges of the screen in a circle. The 3-D effect is enhanced by the ever-approaching star field constantly zipping past your ship. The bddies also approach from the center of the screen, becoming larger as they get closer. All in all, the effect is great. This thing is a real kick. Control of your ship is fluent, and the

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levels become increasingly difficult, without being impossible. It seems like any new game from Europe is so hard starting out, you feel like the programmers had so much contempt for you, they didn't even want to give you a decent chance. Gyruss has a nice balance of difficulty. Tip: Make sure you get (or retain) the double-shot firepower bonus before you reach each planet. If you don't, your odds for a perfect score in the chance stage are slim with only one gun. With bonus lives at 60,000 and 140,000 points, the extra 10,000 can really make a difference. Also, stay away from the upper half of the screen, where control of your ship tends to be more difficult.

3. Oil's Well. Okay, so it's not a shoot-em'-up, but it's fun nonetheless, and the best Pac-Man derivative ever. You are given a maze-like play field in which you guide your "drill bit with a mouth" to clear the field of dots. As you travel around the screen, a length of pipe will follow you wherever you go. Pressing the firebutton will quickly retract your bit back to its origin at the top of the screen. Various creatures traverse the subterranean maze. Most can be destroyed by your bit, but don't let them touch your pipe! One specific bad guy can move right through your pipe, while touching your bit is fatal. Oh, did I mention the timer? Let it run out, and you lose another life. There is one big flashing dot that will slow down everything on the screen, allowing you to gobble more dots unabated. This effect is temporary, and will not return if you lose a life, so use it wisely. This game is a lot of fun, and well conceived. The retracting bit idea is a stroke of genius, adding a new twist to a much-copied theme. I also like the colorful screens, which are not carbon copies, but unique on each level. Heck, the sound ain't bad neither, complete with munching, and a low, constant droning that sounds vauely like the "Jaws" theme. Tip: There is only one of those magic "freezer" dots per level, so save it for the hardest-to-reach portions of each level, normally located at the bottom of the screen. Once that magic dot is gone, it's gone.

4. Turmoil. A game so simple, you almost wonder why you're having so much fun, Turmoil is a great "blast everything in sight" contest. You pilot a ship which seems to be trapped in a high-rise apartment complex (Microsoft's office building?), moving up and down within a middle column. Nasties approach your ship along the various levels in an attempt to ram you. You have two choices: move up, down, or blast away (or a combination), there's really not that much more to it. There are a couple of variations you should be aware of. All the enemies are equally vulnerable (one shot dispatches them), with the exception of tanks, which can only be destroyed from the rear. Bonuses will also appear at either end of the screen on one or more of the levels. Resembling a pulsating donut, these prizes appearing are the only time you are allowed to travel horizontally to pick them up. Wait too long, and they turn against you bouncing back and forth until you or they are destroyed. The final enemy is a real killer, and one ofthe leading causes of my demise when I play Turmoil. It's basically a drone that you cannot destroy (your ammo flies right through it), allowing it to traverse its course unhindered. It loves to appear when you move across a level to pick up a bonus. You are sunk if you cannot get back to the middle of the screen to escape in a vertical direction. Turmoil is great fun in the true sense. The graphics and sound are pretty basic, but it's a real kick. The idea is to hold down the firebutton, moving your controller in all directions. Everything is a target, making Turmoil a true stress buster, pure and simple. Tip: Like most games, the difficulty in Turmoil (speed of enemies in this case) increases with each level. Prepare yourself for a surprise on level five, however. The levels delineating the various "floors" vanish, making it harder to determine where everything is attacking you from. This plus the increased speed makes for much mayhem--er, Turmoil.

5. Centipede. An arcade classic, and an excellent port to the 64. If you've never seen this game (where have you been?), you're in for a real treat. Given a screen littered with mushrooms, you pilot your little craft in the lower fourth of the play field. A centipede begins moving from one side of the screen to the other, turning down a level every time it encounters a mushroom. It doesn't take long before the creature is at the bottom of the screen, ready to make you its lunch. The centipede is easily shot, but the remaining sections are now independent of each other. Once at the bottom of the screen, this nasty bug will begin to multiply as it hits the sides of the screen, making your life really tough. The game's namesake is not your only concern, however. Fleas will drop straight down from the top of the screen, leaving a trail of mushrooms in its wake. The spider is your biggest worry. It will randomly appear near your ship, moving in an erratic pattern, which makes him difficult to blast. Your only bnus in this game is the scorpion which occasionally travels across the upper part of the screen. Nail him, and you earn a cool 1,000 points. These critters are a big help in getting those extra lives. The game looks and sounds like the arcade, but is a bit tougher. If you have a trackball, you can replicate that arcade experience with a similar feel. I've played the game with both ball and stick, and couldn't find one better than the other. The trackball just has a higher fun quotient. Tip: It's a good idea is to find a "channel" of mushrooms which force the bug to move downward in almost a straight line. This way, you can sit in one spot and clear an entire centipede. Be aware that this won't work forever, as your nemesis begins to appear in separate pieces at later levels. I'd be interested to hear about your favorite action games. Send me some e-mail about your picks, and why they are so good. We should be able to get your comments into the letters section. Happy Blasting!

Tetris Inventor Finally Sees First Payment

January 22, 1997. Alexey Pajitnov authored one of the world's most popular computer games, but it has taken more than ten years for him to get paid for it.

In 1985 Pajitnov coded Tetris at the Soviet Academy of Science in Moscow.

"The game is very simple," Pajitnov said, interviewed at his home in suburban Seattle. "Everybody can understand it and everybody says that it has some kind of absolutely mysterious charm in this game so once people start playing they can't stop and do it for hours."

Tetris was marketed under Perestroika, Mikhail Gorbachev's bid to open up the Soviet economy. It was one of the Soviet regime's first experiments with capitalism.

Tetris was a huge success, published in many forms, selling 40 million copies. Pajitnov never received a cent for Tetris because of complicated Soviet-era government contracts.

Tetris' most popular version was for Nintendo's Gameboy, which helped launch the successful hand-held game system.

As of last year, all rights to the game reverted back to Alexy so he can finally collect Tetris royalties.

Tetris Junior, a small game machine attached to a key chain is the first product that will pay royalties to Pajitnov's new business, the Tetris Co.

Living in the U.S, he's busy creating a multiplayer version of the electronic puzzle that he hopes will appeal to a new

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generation of Tetris fans.

"People still play this game," said Pajitnov. "So I hope that several other generations of people enjoy the game and maybe it will stay forever."

CMD News: SmartTrack Discontinued

CMD has recently discontinued production of their trackball, SmartTrack. This device had previously been produced by modifying a standard trackball with a special module produced by CMD. However, the specific model that had been used for this purpose is no longer available, and CMD has been unable to find any other trackballs which could easily be fitted with their module.

SwiftLink Discontinued, Replaced by Turbo232

CMD has recently announced that they will discontinue SwiftLink-232, replacing it with their new Turbo232 modem interface. Turbo232 provides backward-compatibility with SwiftLink, but further enhances the ability to use modern modems by adding three new high-speed modes of 57.6Kbps, 115.2Kbps and 230Kbps. Turbo232 is slated for release by mid-January for $39.95 retail. Additional details will be made available soon.

Commodore World Special Report:

SuperCPU Update

This is from CMD's Web page: Now that the SuperCPU 64 has been shipping for a while, the initial clamor has died down and users are beginning to ask, "When does the 128 version start shipping?" Add to this those who are asking about the various developer tools and memory expansion, then top it all off with the fact that Creative Micro Designs (CMD) has been fairly quiet about all of these things lately, and it begins to appear as if there might be something seriously wrong.

The reality of the situation, though, is that CMD has been quiet mostly because they've been very busy. Admittedly, though, things are taking longer than originally anticipated, and other necessary projects have added to the delays. But before we get too far ahead of ourselves, let's go back to the announcement of the 128 version, and then work our way forward.

The announcement of the 128 SuperCPU came after the 128 community made a strong showing, convincing CMD that a 128 version would be viable from a sales standpoint. At the time of the announcement, CMD realized that there would be some extra work involved to make a common main board, which was necessary to make the 128 version cost-effective. The release date of the 64 version was then pushed back from January of 1996 to March, and estimated that the 128 version would take an additional 60 days beyond that.

However, CMD encountered many more interfacing problems than they had originally anticipated. Dealing with these problems required extensive modification of the custom logic chip, or CPLD, in the SuperCPU. To further complicate matters, changing the CPLD became more and more difficult as the resources within the chip were diminished. Near the end of the design phase, the CPLD had to be completely redone a number of times to make additional logic functions possible.

Finally, in July--four months beyond the new target date--the SuperCPU 64 was ready, and shipping began. Knowing that the CPLD design phase had taken much longer than expected, and assuming that this would also be the case with creating a CPLD to emulate the 128's MMU, it would be impossible to get the 128 version to market in only 60 days. And there was a newly discovered factor that hadn't figured into the original time estimate--a daughter card would be required for the 128 version, because Commodore hadn't allowed some 128 hardware features to be controlled from the cartridge port. It was starting to look like it would be the end of the year before the 128 version could begin shipping.

And then reports of problems with the 64 version on a few Commodore 64c computers starting coming in. Two more months of analysis and redesign to resolve timing inconsistencies with this specific Commodore model. Changes in staffing also came around this time, and with the loss of Wayne Wrubel--CMD's production and repair technician--engineer Mark Fellows was called on to fill in on production and repairs while training new engineering assistant and technician Tony Cote.

Once Tony began getting up to speed, Mark was finally able to get back to engineering. But so much time had passed with all the delays that another scheduled project needed immediate attention--a replacement for SwiftLink. Initial work on this project had begun over a year earlier, but was put off until the current supply of circuit boards could be exhausted. That time was coming quickly. SwiftLink had proven to be more expensive to produce than it really should be for various reasons, and worse, modem speeds were escalating quickly to the point of obsoleting the interface. Mark put in a couple of weeks on a new design, and passed the results on to Tony for a new board layout so that he could get back to work on the SuperCPU project.

After some initial work on the SuperCPU 128 MMU logic, the focus of development moved to researching the expansion RAM circuitry, which initially looked relatively simple. However, as Mark got a little further into the design, it became apparent that using DRAM (Dynamic RAM) and a standard approach to the RAM controller would not provide adequate performance.

Most of November, and the first part of December, was spent researching every type of RAM that might provide a performance boost. While some types did offer better performance, these came with added cost and were less commonly available in the marketplace. In early December, an interleaved memory scheme was investigated, but the method required additional logic that would raise the cost and space requirements of the controller--but there wasn't that much room available on the board.

The solution came in using 72-pin SIMMs--an idea that was earlier rejected because these SIMMs are 32 bits wide, making their use prohibitive. Upon closer inspection, however, only Error Correcting (ECC) SIMMs presented a problem--standard Fast Page and EDO types offer access to 8-bit segments of the 32-bit data. By combining standard Fast Page 72-pin SIMMs with interleaved access, adequate performance at optimal pricing was attained.

This brings us nearly up to date, as CMD is currently prototyping the RAM controller. CMD has also decided to release a separate SuperCPU 64 RAM expansion card as soon as possible, because this helps prove out the design for the 128 model, and is instrumental in getting developers going on new SuperCPU-based applications. The card will offer a single 72-pin SIMM socket, capable of holding from 1 to 16 Megabytes of RAM. Much of the work required to move from the prototype to the production model will be handled by Tony Cote, allowing Mark Fellows to continue

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work on the rest of the SuperCPU 128 circuitry and firmware.

Given the delays, and considering the amount of work remaining in the project, CMD estimates release of the SuperCPU 128 will be in April. CMD also wishes to express thanks to all the SuperCPU 128 customers who have waited patiently for this product. It's coming!

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GEOS And Postscript

Reprinted with permission from Randy Winchester. Most of the questions I get asked about this column have something to do with PostScript: how GEOS produces PostScript, how to save PostScript files, and how to print PostScript files on a laser printer. One frequently asked question is, "When is someone going to make a version of geoLaser that prints to a disk file?"

Up until a couple of weeks ago, I would laser print my GEOS documents by having geoPublaser send its PostScript output over a modem to another computer. Wonderful, but admittedly, this is a clunky process. It requires a second computer and a modem that won't hang up if you bail out of a terminal program to run geoPublaser. You'll need both computers in the same room, or you'll have to recruit someone with a computer and modem to receive your file. These complications make the question of a PostScript to disk program even more urgent.

Fortunately, questions like this don't go unanswered for long. Jim Collette is a talented geoprogrammer, a winner in BSW's programming contest with his Font Editor. Prompted by some talk on QLink, he turned his attention to geoLaser/Publaser.

Jim wanted to save PostScript files to disk too. He tore into geoLaser and geoPublaser, changed some bytes here and there, and now they will send their output to a file.

Jim put these changes into a GEOS application, PS.Patch. PS.Patch can alter your copies of geoLaser and geoPublaser to make them produce PostScript files on a disk.

PS.Patch is simple to use. Start with a blank disk and copy geoLaser, geoPublaser, and PS.Patch to it. Double click on PS.Patch and select geoLaser or Publaser from the patch menu, then select either PS on Drive 8 or PS on Drive 9. geoLaser/Publaser will always make PostScript files on the drive you select when you patch them. It's a good idea to rename the patched copies of geoLaser/ Publaser so you won't confuse them with the originals.

The new versions of geoLaser/ Publaser work pretty much the same as the old versions. To use the new geoLaser/Publaser, copy it to a drive along with the files to print and any fonts they use. The PostScript files will be written to the drive selected during patching. Put a blank disk in that drive. Double click on the geoLaser/Publaser icon, select 9600 baud, then select a file to print. You'll then see choices for scaling and multiple copies. Click on the boxes you want, then click OK. The disk in the drive should start spinning. When the file selection menu reappears and the disk drive stops, you're finished. (If you use a RAM drive it'll be over before you know it!) Check the disk directory. Your PostScript file will be a SEQuential file named "PS." followed by the name of the file you printed.

Caution: there are several incompatible versions of geoPublish and geoPublaser. My first attempt at patching a Publaser dated 11/19/87 ended with badly botched results. A report from one user is that the Publaser dated 3/10/88 is entirely useless. For this article, I'm using a Publish dated 10/4/88 along with a special release of Publaser that originally had a date of 1986! To top things off, all these versions of Publish and Publaser are V1.0! Anyway, to distinguish the supposedly good Publaser, look for the words Only for use w/Pub files created w/vers. 10/88 or later (our v. 1.2) in the info box. Wouldn't it be nice if some kind soul at BSW took the time to clear this up?

A pointer: avoid bitmapped fonts in your laser printed documents. Try to stick with the Laser Writer fonts, such as LW_Roma. Documents with bitmapped fonts are converted to PostScript as bitmaps. These bitmaps can get pretty big. On the other hand, text written with LW fonts is converted to PostScript as text. Not only will the files be smaller, but LW fonts look much sharper.

This pointer also applies for pictures pasted into geoWrite and geoPublish documents. The more pictures you use, the longer it will take to generate a PostScript file, and the larger that file will be.

What's It Good For? For one thing, if you know of a printing company that does laser printing and can read Commodore disks, you're all set. All you have to do is put your PostScript files on a disk and hand it over.

Unfortunately, most printing companies don't use Commodores, but many do use IBM gear. If you have a Commodore 128 with a 1571 disk drive, you can use the public domain Cross Link to copy PostScript files to an IBM disk. If you're going to be doing much file copying to IBM disks, I recommend The Big Blue Reader.

Telecommunications is another possibility for getting PostScript files to a printer. Check with print shops to see if they offer a modem service. If they do, use a terminal program to upload files to them.

Printing PostScript Files: If you're using an Apple LaserWriter, you'll need to connect it to a computer with an RS-232 cable. If you're hooking up a Commodore to the LaserWriter, you'll need to use an RS-232 interface, such as the Omnitronix Deluxe RS-232 interface. The Apple Macintosh, another exception, uses a special cable to hook up to a LaserWriter.

Most terminal software can be used to print PostScript files. I have used CBTerm on the C64 and UltraTerm on the C128. Set the parameters for 1200 baud, 8 bit characters, no parity, and half duplex. To send a PostScript file to the laser printer, use a Text, or ASCII transfer, or load the PostScript file into the terminal's buffer and transmit the buffer. A common problem with Commodore terminal software is that it might try to convert the file from PETASCII to ASCII. PostScript files are already ASCII. Never select ASCII conversion when printing PostScript from a Commodore terminal program.

IBM and Apple computers also use terminal software to print PostScript files. The communications settings and process are the same as for the Commodore. Additionally, SendPS is a free application for the Macintosh specifically for printing PostScript files.

The Truly Fascinating Part: PostScript files can be edited to add special effects, special characters that can't be typed from the keyboard \345like these arrows\353, or things that geoPublish can't do, such as rotate text. If you caught this column last time, you already know that PostScript fonts have almost twice as many characters as can be

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typed from the keyboard. The only way to get them into a GEOS document is by editing the PostScript output.

PostScript's versatility comes at a high cost. A PostScript file for this entire article would be unbearably tedious to write from scratch. It makes good sense to do as much work as possible with geoPublish, generate a PostScript file, then edit the PostScript file to add special effects.

Being faced for the first time with PostScript files on a Commodore disk, I was at a real loss as how to edit them. PostScript files can get enormous; 20 to 40K is common. A PostScript file editor for the 64 would have to edit a) true ASCII files, and b) any size file, even larger than can fit in memory. It would also be an advantage if people could easily get copies of this program so they could try out the exercises in these articles. I agonized about this until I realized I already had an editor that fit the bill.

geoWrite is almost a perfect PostScript file editor. geoWrite can edit large files by swapping pages to disk. I estimate that at 3.5K per page, geoWrite can handle files larger than 200K. I sincerely hope you never have a file that big. The problem with geoWrite is that it can't directly read ASCII files.

The solution is Storm System's Wrong Is Write. Use this amazing little utility to convert your PostScript files to geoWrite, then use it again to convert them back to ASCII. Public domain versions of Wrong Is Write are available on telecommunications networks and BBSs. Storm Systems will soon release a version 8.0 that will run with GEOS 128 V2.0 in 80 columns.

So, that's the new good news. PostScript is now a completely natural part of GEOS. PostScript files can be created directly with geoLaser/Publaser, converted with Wrong Is Write, and edited with geoWrite. The forces of the universe are now in harmony. What more could we want?

I enjoy your mail. If you have any questions or comments, please write.

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What Is The Validate Command, Really?

by Jeff Jones. In its most primitive form it's open15,dv,15,"v": close15. These days it's usually @v. Some people swear by the drive number and always use @v0 or perhaps even @v0: but I'm not one of those people.

For years I've used the Validate command like voodoo. If all else fails, validate. Well now I use it more deliberately. Usually it's still an act of desperation because I need to free up blocks, if even one, to squeeze more bytes onto a disk.

The reason Validate frees up blocks is because it traces the files in the directory and counts the blocks used. It updates the BAM, freeing or allocating if there is a discrepancy, and fixing your directory so that it tells the tale of the trace.

Some people still feel that you shouldn't validate a disk with REL files on them. This is a myth. REL files are supported file formats, and are allocated in the BAM. You can't validate Random files. It used to be you'd only see them as RND files, but the type is only cosmetic. GEOS files would be better typed RND files than USR. Validating a disk with GEOS files on it will ruin the GEOS files, one more reason why we prefer not to publish GEOS files on our disks. Geos files are ruined because the trace comes to what it thinks is the end of the Geos file in the directory. There may be much more to the Geos file, but the BAM is allocated according to normal DOS. For reasons I'd rather not go into, "extra files" may appear on your disk when you validate a Geos disk.

All is not lost if you validate a disk with Geos files on it. Simply boot Geos and Validate from within Geos. It will return everything to normal — if anything is *normal* in Geos.

Over the years I've found that there is another use for the validate command. Let's say you're trying to duplicate a disk, but your copier says source error or read error. You've been using your source disk for weeks with no problem.. You had no idea there was a read error on it until now. What to do?

Well if you validate your disk and it doesn't end in a flashing light, all your files are indeed intact. Remember, the Validate command reads every file from beginning to end. If there is a bad link in your file, you'll get head banging during the validation.

If your disk validates without any flashing lights or head banging, the bad sector is not being used. You can file copy or BAM copy the disk to a new source with no problem.

Validate also removes *splat* files, officially termed, *write open files*. These are files that appear in the directory footnoted with asterisks. These files were never properly closed because the disk filled or the program was interrupted. Validate removes the splat, and deallocates any blocks taken up by the file in those rare times when a splat file is larger than zero blocks.

Salvaging a Crashed RAMLink

by Jeff Jones. After about five years, my RAMLink lost data. I attribute it to my REU pushing up against the monitor. It was a short waiting to happen. Either that or it was a Trojan horse from some PD program I was running. I remember a strange reset as my last event of the day. The next day I came in and my computer would not boot.

It would not boot up in the cold
It would not boot in 64 mode
It would not boot with REU
It would not boot with SuperCPU.

I tried it with my cartridge in
I tried pushing the reset pin
I tried it with my snapshot out
It failed, it failed, I began to pout

Was there another way to boot?
Could it be the CPU?
Could it be my power supply?
Why, oh, why is my RAMLink Fried?

I searched and searched for backup disks
BCOPY flashed, I shook my fists
Three minutes passed, the restore failed
I wailed and wailed and wailed and wailed

And then I got a bright idea
Remove the power from RAMLink rear
Allow bad RAM to give up ghost
I had to wait five secs at most

Restored the power, RAMLink pristine
BCOPY replenished bytes of this fiend
I learned a lesson, I learned it well
What to do when a RAMLink fails:

Remove all power from the RAMLink rear
Let it get itself in gear
Restore the power after wait
BCOPY restores it in this state

Drug Dealers Vs. Software Developers

Refer to their clients as "users".	Refer to their clients as "users"
"The first one's free!"	"Download a free trial version..."
Have important South-east Asian connections (to help move the stuff)	Have important South-east Asian connections (to help debug the code)
Strange jargon: Stick, rock, dime bag,	Strange jargon: SCSI, JAVA, HTML
Realize that there's tons of cash in the 14 to 25-year old market	Realize that there's tons of cash in the 14 to 25-year old market
Often seen in the company of pimps and hustlers	Often seen in the company of marketers and capitalists
Their product causes unhealthy addictions	LOADSTAR! Nuff said.
Do your job well and you can sleep with sexy movie stars who depend on you	Damn! Damn! DAMN!!!

LOADSTAR LETTER #42

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